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LOWER-BODY DECOMPRESSION FOR THE TREATMENT OF LUNG EDEMA

A. Buhlman, Zurich

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The author investigated the effect of lower-body decompression on blood pressure and lung circulation in 5 patients with lung congestions. The lower pressure of 14-30 mm Hg was applied by enclosing the body below the diaphragm in a plastic bag connected with a common suction pump and a water manometer. The expected decrease of venous reflex resulted in all cases within 15 seconds in a clearly defined pressure decrease within the lung capillaries and in the A. pulmonaris. Pressure in the right auricle also decreased slightly. The pulse frequency remained practically constant; the peripheral blook pressure fell slightly. Immediately after the elimination of decompression, pressure valves in the lung circulation increased; some even rose exceedingly. If lower-body decompression is implemented with a negative pressure of 40 to 50 mm Hg, the mobility of the diaphragm is affected and results in a deterioration of ventilation. The treatment method should therefore be applied only with strict supervision. As compared to artificial overpressure respiration, the method is simpler and less costly as regards equipment.

References

C. Potanin: Lower-body decompression in the left-heart failure. Lancet 1967 : II, 241.

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